

MEMBERS



Assoc. Prof. Dr. Hazura Zulzalil (LEADER)

Bac. in Comp. Sc. (UPM), M.Sc. (UPM), Ph. D. (UPM)
Expertise: Software Quality, Software Measurement,
Empirical Software Engineering
Tel: 603- 894 71705, Email: hazura@upm.edu.my



Prof. Dr. Abdul Azim Abd. Ghani

B.Sc. (Indiana State), M.Sc. (Miami), Ph.D. (Strathclyde)
Expertise: Software Requirements Engineering,
Software Testing, Software Measurement
Tel: 603-894 71735, Email: azim@upm.edu.my



Prof. Dr. Abu Bakar Md. Sultan

Dip. in Comp. Sc. (UPM), Bac. in Comp. Sc. (ITM-UPM),
M.Sc. (UPM), Ph.D. (UPM)
Expertise: Search-based Software Engineering, Evolutionary
Algorithm
Tel: 603- 894 66555, Email: abakar@upm.edu.my



Dr. Azrina Kamaruddin

Ph. D. in Computing (Lancaster University, UK)
Human Computer Interaction, Usability/Ux Engineering,
Human Factors
Tel: 03-894 71763, E-mail: azrina@upm.edu.my



Dr. Jamilah Din

Bac. In Comp. Sc. (Indiana), M.Sc. (UPM), Ph.D. (UKM)
Expertise: Object-oriented Design
Tel: 603- 894 71759, Email: jamilahd@upm.edu.my



Dr. Khaironi Yatim Sharif

Dip. in Comp. Sc. (UTM), B.Sc. (UTM), M.Sc. (UTM)
Ph.D. (Limerick)
Expertise: Real-time Software Engineering, Program
Comprehension
Tel: 603- 894 71718, Email: khaironi@upm.edu.my



Dr. Koh Tieng Wei

Dip. in Comp. Sc. (UPM), Bac. in Comp. Sc. (UPM), M.Sc. (UPM),
Ph. D. (UPM)
Expertise: Software Measurement and Estimation
Tel: 603- 894 71799, Email: twkoh@upm.edu.my



Dr. Mar Yah Said

B.Sc. (Leeds Metropolitan), M.Sc. (UTM), Ph.D. (Southampton)
Expertise: Software Requirements, Formal Specification
Tel: 603- 894 71772, Email: maryah@upm.edu.my



Dr. Ng Keng Yap

Bac. in Comp. Sc. (UPM), M.Sc. (UPM), Ph.D. (Manchester)
Expertise: Component-based/Big data Software Engineering,
Software Metrics
Tel: 603-894 71754, Email: kengyap@upm.edu.my



Dr. Norhayati Mohd Ali

Dip. in Comp. Sc. (ITM), B.Sc. (UTM), M.Sc. (Southampton),
Ph. D. (Auckland)
Expertise: Software Critics, Software Modelling
Tel: 603- 894 71764, Email: hayati@upm.edu.my



Dr. Novia Indriaty Admodisastro

Bac. in Comp. Sc. (UPM), MSE (UM), Ph.D. (Lancaster)
Expertise: Software Architecture,
Component-based Software Development,
Object-oriented Analysis and Design
Tel: 603-894 71755, Email: novia@upm.edu.my



Dr. Pathiah Abdul Samat

Dip. in Comp Sc (ITM) B.Sc. in Comp. Sc. (UTM),
M.Sc. (UTM) , Ph.D. (UKM)
Expertise: Formal Software Verification, Model Checking
Tel: 603-894 71756, Email: pathiah@upm.edu.my



Dr. Salmi Baharom

Dip. in Comp Sc (ITM), Bac. in Comp. Sc. (UPM),
M.Sc. (UKM), Ph.D. (UKM)
Expertise: Software Testing
Tel: 603- 894 71762, Email: salmi@upm.edu.my



Dr. Sa'adah Hassan

Dip. in Comp Sc (ITM), B.Sc. (UTM), MSE (UM), Ph.D. (Ulster)
Expertise: Requirements Engineering,
Tel: 603- 894 71761, Email: saadah@upm.edu.my



Dr. Wan Nurhayati Wan Ab.Rahman

B.Sc. (UKM), M.Sc. (Salford), Ph.D. (Salford)
Expertise: E-Commerce
Tel: 603-894 71716, Email: wnurhayati@upm.edu.my



Mrs. Ainita Ban

B.Sc. (Salford), M.Sc. (UKM)
Expertise: Formal Specification
Tel: 603-894 71767, Email: ainita@upm.edu.my



Dr. Mohd Hafeez Osman

Ph. D. (Leiden University)
Expertise: Reverse Engineering, Software Design
Tel: 603-894 71720, Email: hafeez@upm.edu.my

For further information kindly contact:

Assoc. Prof. Dr. Hazura Zulzalil (Leader)

Software Engineering Research Group
Faculty of Computer Science & Information Technology
Universiti Putra Malaysia 43400 UPM Serdang, Selangor
Tel: 603-894 71705, Email: hazura@upm.edu.my



FACULTY OF COMPUTER SCIENCE AND INFORMATION TECHNOLOGY
SOFTWARE ENGINEERING RESEARCH GROUP (SERG@UPM)

SOFTWARE ENGINEERING RESEARCH GROUP

FACULTY OF COMPUTER SCIENCE AND INFORMATION TECHNOLOGY
DEPARTMENT OF SOFTWARE ENGINEERING AND INFORMATION SYSTEMS
UNIVERSITI PUTRA MALAYSIA, 43400 UPM SERDANG,
SELANGOR DARUL EHSAN



OVERVIEW

Software engineering is an engineering discipline that is concerned with every aspect of software production from early stages of software requirement through maintenance.

In Universiti Putra Malaysia (UPM), software engineering related research activities are conducted by the Software Engineering Research Group (SERG@UPM).

SERG@UPM is one of the most prolific research groups under the Department of Software Engineering and Information Systems, Faculty of Computer Science and Information Technology. Our research cover systematic, disciplined, quantifiable techniques and methods to design, develop, implement and maintain industrial strength software.

Because we have :

- ✓ well trained experts in several areas of software engineering.
- ✓ comprehensive and well-established software engineering specializations.
- ✓ high number of successful Ph.D. and Master holders.
- ✓ high number of research grants.
- ✓ well-equipped IT facilities and conducive environment.
- ✓ consistent scientific publications in international journals and conference proceedings.

Current Active Students

Ph. D. Research Programme - 30 students
Master Research Programme - 16 students

Cumulative Graduated Students

Ph. D. & Master Research Programme - 45 students

RESEARCH AREAS

Software requirements engineering
Software design and modeling
Software testing
Software quality
Software maintenance
Software measurement and estimation
Software development methodology
Software engineering management
Enterprise software engineering
Green software engineering
Embedded software engineering
Search-based software engineering
Component-based software engineering
Theoretical and formal aspect of software engineering
Big Data Software Engineering

Current Research Projects/Grants

- Enhanced Genetic Algorithms for Detecting and Removing Cross-Site Scripting Vulnerabilities in Java Web Applications
Principle investigator: Prof. Dr. Abu Bakar Md Sultan
FRGS, RM 73 500, Dis 2013 - Nov 2016
- Agile Transformation Framework for Successful Transition and Adoption of Agile Software Development Methodology
Principle investigator: Assoc. Prof. Dr. Hazura Zulzalil
FRGS, RM 85 500, Dis 2013 - May 2016
- Software Behavioral-based Energy Consumption Model for Developing Energy Efficient Mobile Applications
Principle investigator: Dr. Koh Tieng Wei
FRGS, RM 84 400, Dis 2013 - May 2016
- The Evolutionary Programming Approach for Automatic SQL Injection Vulnerabilities Fixing in Web Application
Principle investigator: Prof. Dr. Abu Bakar Md Sultan
FRGS, RM 92 200, Dis 2015 - Nov 2017
- SDPM to support management decisions in optimizing performance of safety critical system development.
Principle investigator: Dr. Jamilah Din
FRGS, RM 87 300, Dis 2015 - Nov 2017
- Genetic algorithm approach to enhance the effectiveness of State-Sensitivity Partitioning in generating test cases
Principle investigator: Dr. Salmi Baharom
FRGS, RM 89 800, Dis 2015 - Nov 2017
- Enhanced Error Inheritance Prevention Technique based on Incremental Component Composition
Principle investigator: Dr. Ng Keng Yap
FRGS, RM 98 350, Dis 2015 - Nov 2017
- A Self-Adaptation Framework to Enhance Dynamic Service Reconfiguration in Service-Oriented Architecture
Principle investigator: Dr. Novia Indriaty Admodisastro
FRGS, RM 86 100, Dis 2015 - Nov 2017

- An Analysis Approach for Specifying Innovative Elements in Improving Mobile Application Requirements
Principle investigator: Dr. Sa'adah Hassan
FRGS, RM 72 000, Dis 2015 - Nov 2017
- Metamodel Critics to Enhance the Consistency of Model-Implementation Mapping in a Model-Driven Software Engineering
Principle investigator: Dr. Norhayati Mohd Ali
FRGS, RM 91 800, Dis 2015 - Nov 2017

Research Publications (Last 3 years)

- 3 Books
- 5 Chapters in Books
- 12 ISI Indexed Journals
- 45 Citation Indexed Journals
- 23 Non-citation Indexed Journals

Achievements

- ✓ GOLD Medal (PRPI 2014), RAMBUTANS : An Automatic Randomized Test Generation Tool for Aspect-oriented Software (Prof. Dr. Abdul Azim Abd Ghan)
- ✓ GOLD Medal (i-PHEX2014), A Collaborative Software Design Critiquing Tool (Dr. Norhayati Mohd Ali).
- ✓ SILVER Medal (i-PHEX2014), LoQET: Learning Outcome Based Question Examination Tool (Dr. Sa'adah Hassan).
- ✓ SILVER Medal (PRPI 2014), Software Architectural Analysis in Component-Based Software Development (Dr. Novia Indriaty Admodisastro).
- ✓ BRONZE Medal PECTA 2015 - Learning Outcome-based Examination Paper Tool Shortlisted Project (Reimagine Education Awards 2015) - Learning Outcome-based Examination Paper Tool (Dr. Sa'adah Hassan).

and more....

ENTRY Requirements

Doctor of Philosophy Programme

Programme: Doctor of Philosophy

The applicant should possess:

- (a) a Master Degree (with coursework) in a relevant field with a minimum grade average of B, or
- (b) a Master Degree with thesis in a relevant field, or
- (c) an outstanding Bachelor's degree with a minimum CGPA of 3.750 (such an applicant may apply direct admission even without a Master Degree).

Master's Programme With Thesis

Programme: Master of Science

An applicant should have a Bachelor Degree in Computer Science or its equivalent with a CGPA of at least 3.00 from UPM or other universities recognised by UPM, or Applicants with a CGPA between 2.75 to 2.99 (2.75 ≤ CGPA < 3.00), may be considered if they have at least one (1) year of working experience in the related field.

HOW TO APPLY?

Access the Online Application via sgsportal.upm.edu.my
Application is open throughout the year, with two intakes in February and September

